



Photoelectric sensors G6, Through-beam photoelectric sensor

GSE6-P4121S31



Model Name > GSE6-P4121S31
Part No. > 1063527



Illustration may differ

At a glance

- Durable metal threaded inserts
- SICK ASIC technology - the result of decades of experience in photoelectric sensors
- Large, user-friendly potentiometer
- Large, bright indicator LEDs
- IP 67 enclosure rating

Your benefits

- Quick and easy mounting and high durability due to threaded metal inserts
- SICK ASIC technology provides high performance and excellent reliability
- Easy to adjust due to large, user-friendly potentiometers
- Easy to monitor due to large, bright indicator LEDs
- Easy installation with SICK accessories



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	12 mm x 31.5 mm x 21 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 14.5 m
Sensing range:	0 m ... 10.6 m
Type of light:	Infrared light
Light source:	LED ¹⁾
Wave length:	880 nm
Light spot size (distance):	Ø 750 mm (10 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

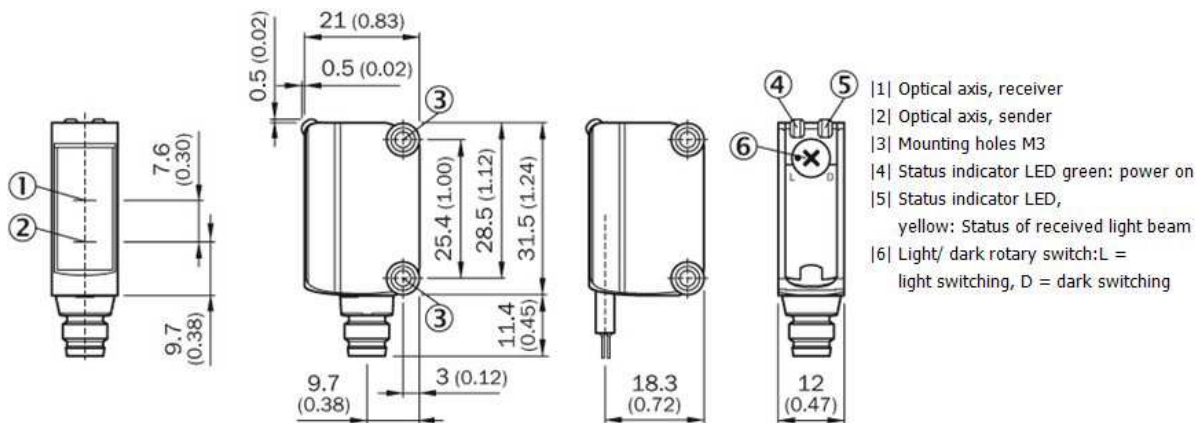
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	PNP
Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark selector
Output current I _{max} .:	≤ 100 mA ⁴⁾
Response time:	< 500 µs ⁵⁾

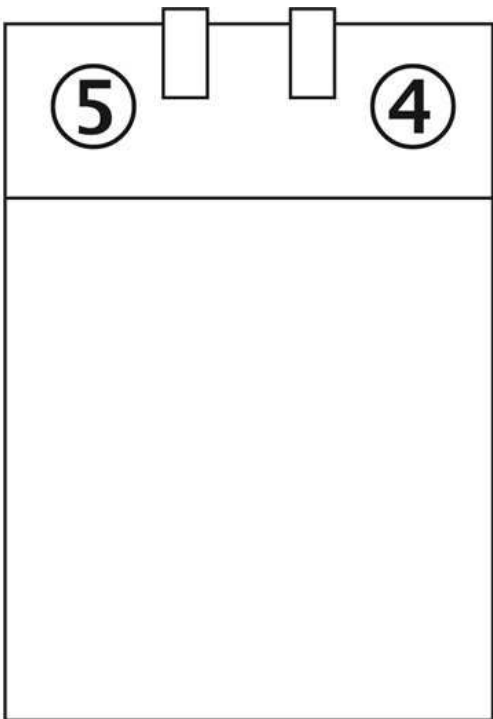
Switching frequency:	1,000 Hz ⁶⁾
Connection type:	Connector M8, 4-pin, 2 m ⁷⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, D ⁸⁾ ⁹⁾ ¹⁰⁾
Protection class:	III
Weight:	40 g
Polarisation filter:	-
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient temperature operation:	-25 °C ... +55 °C ¹¹⁾
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH.E348498 & NRKH7.E348498
Signal voltage PNP HIGH/LOW:	VS - (≤ 3 V)/approx. 0 V
Housing material:	ABS/PC, Plastic

- ¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ At $V_S > 24$ V, $I_{A \max} = 50$ mA
⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ Do not bend below 0 °C ⁸⁾ A = V_S connections reverse-polarity protected ⁹⁾ B = inputs and output reverse-polarity protected ¹⁰⁾ D = outputs overcurrent and short-circuit protected ¹¹⁾ Temperature stability after adjustment $\pm 10^\circ\text{C}$

Dimensional drawing



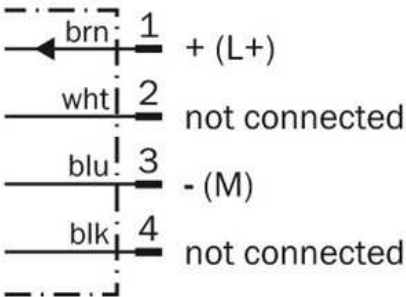
Adjustments possible



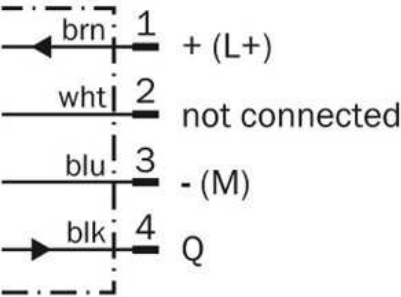
- |4| Status indicator LED green: power on
- |5| Status indicator LED, yellow: Status of received light beam

Connection diagram

①

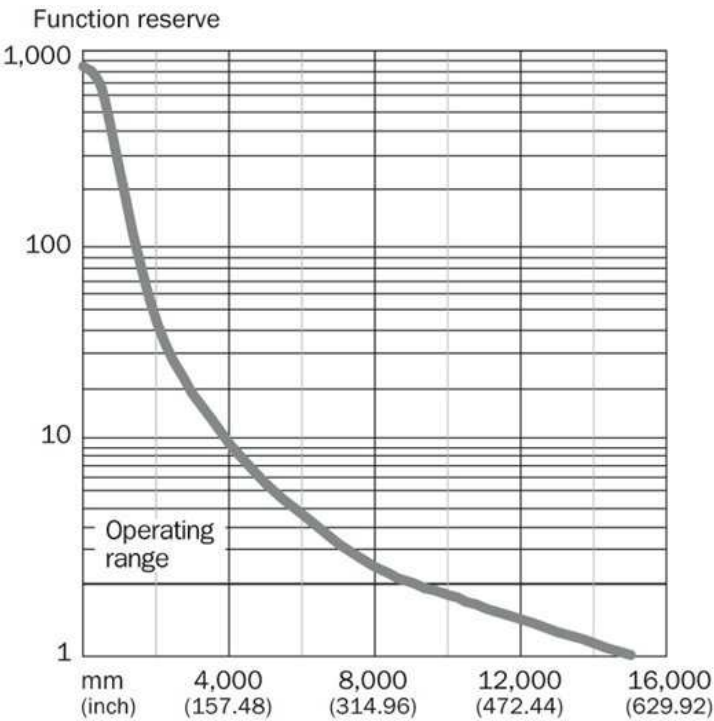


②

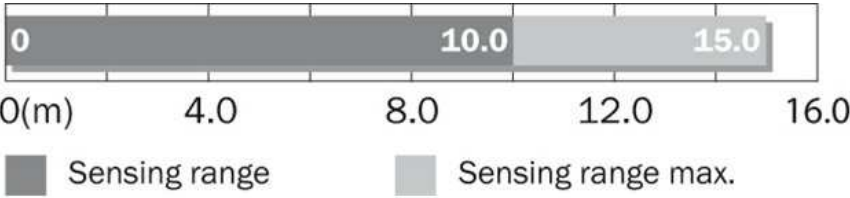


- |1| sender
- |2| receiver

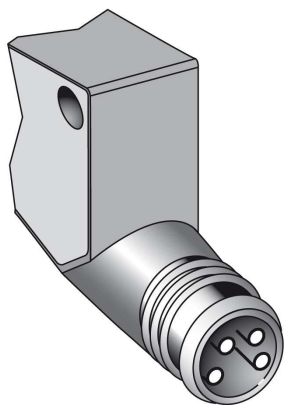
Characteristic curve



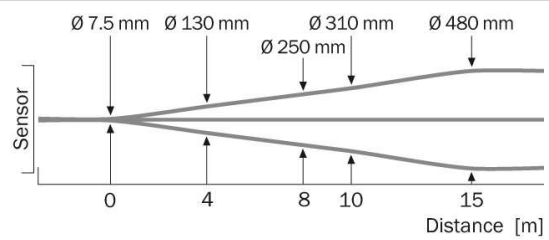
Sensing range diagram



Connection type



Light spot size



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